

Gen. 35. Siphonotus, Brandt.—Ocelli 2, in serie simplici transversâ.

Fam. 10. Siphonophoridae, Newp. (Typhlogena, Brandt.)—Oculi nulli.

Gen. 36. Siphonophora, Brandt.—Caput conicum, elongatum. Nutritionis organa rostriformia, elongata.

The author then proceeds to treat at considerable length of the external anatomy of the *Myriapoda*, commencing with the composition and mode of development of the segments and their appendages, and comparing them in these particulars with Insects. The variations in the several genera of *Myriapoda* are particularly noticed; and the principles on which their development, in its various modifications, depends, are elucidated by numerous observations on their mode of growth. The structure and development of the head are next treated of in detail in the different families and genera of the *Chilopoda*; and the organs of nutrition are especially examined with reference to their development and analogies. This branch of the subject is concluded by an appreciation of the relative value of the different parts of the skeleton in furnishing generic and specific characters.

The systematic description of the families, genera and species of the *Myriapoda Chilopoda* completes the memoir; which was accompanied by a series of drawings, illustrative of their external anatomy and generic characters.

ZOOLOGICAL SOCIETY.

Oct. 24, 1843.—William Yarrell, Esq., Vice-President, in the Chair.

Mr. Bridges on the habits, &c. of some of the smaller species of Chilian Rodents.

“*Mus longicaudatus*, Bennett.—I found this mouse in the valley of Quillota, fourteen leagues distant from Valparaiso, in the vicinity of brooks and rivulets, amongst weeds and long grass, although from its appearance I should imagine it seldom takes the water. In that part of Chile it is not rare, but it cannot be considered a common species. In the province of Colchagua I have found another species approaching *M. longicaudatus* and more abundant, differing slightly in the length of its tail, and in being somewhat less in size. At first sight the two species are liable to be confounded. Probably this is the same species mentioned in p. 40 of the ‘Zool. of the Voyage of the Beagle’ by Mr. Darwin as being so numerous in the province of Concepcion.

“*Mus longipilis*—Waterh., ‘Voy. of the Beagle,’—inhabits the provinces of Aconcagua, Valparaiso and Colchagua. Its favourite haunts are the hedges made of bushes of *Mimosa Cavenia* and *Trevoa trinervis*, also other shrubs used indiscriminately for that purpose. It is necessary to explain that the hedges of the fields of Chile are renewed every year by throwing on each side of them new layers of bushes, and that they are frequently two or three yards across, forming thus a mass of decomposing wood, which gives excellent shelter for the

numerous small Rodents inhabiting that country, which is so rich in this interesting group. The *Mus longipilis* is without a native name to distinguish it from the other species found in Chile. All the small species belonging to different families are known and called by the natives by the name of Llaucha, pronounced Yaw-cha, a term in the language of the Auracarian Indians signifying a mouse, and this name is current in the present day in the parts of the country occupied by the descendants of the Spaniards. The general term applied to the large species is 'Ratonés.' There is a species found near the town of Quillota, fourteen leagues distant from Valparaiso, and probably not yet known to naturalists, called 'Pericote.' This animal lives in common in the caves with *Octodon Cumingii*.

"*Myopotamus Coypus*, Auct.,—*Mus Coypus*, Molina,—inhabits the margins of rivers and lakes in the southern provinces of Chile, abounding more in the lakes than in the rivers, where the *Typha latifolia* and *Scirpus* species are plentiful to give them shelter. During the time of copulation, which takes place in September and October, the Coypo makes a mournful kind of cry, which somewhat resembles that of a young child. I was once riding along the margins of one of the streams which enters the river Teno in the province of Colchagua, and my attention was roused by a most melancholy sound, which I fancied was from a child in the water, and to my surprise I found it arose from a Coypo seated on a dead stump almost on a level with the water. I could not help listening for a few minutes at the singular noise, till on a sudden, when the Coypo saw me, it disappeared under water. The Coypo possesses a strong attachment for its young, and swims with them on its back till they are sufficiently large to follow the old ones in pursuit of their food. The places where the Coypo most abounds in Chile are the borders of the river Maypo near Santiago, the capital of the country, also in the lakes of 'Aculeo' and Quintero. The natives, especially the husbandmen, use the skin of this animal to make tobacco-pouches.

"*Octodon Cumingii*, Bennett,—*Sciurus Degus*, Molina,—*Dondrobius Degus*, Meyen,—is the most common of all the Chile Rodents. It is found in the hedges of the central provinces of Chile, and may be seen during the day, but more generally in the afternoon. In habits it is tame, and at first sight distinguished from all other species from its activity and by its carrying the tail curved upwards like the mountain *Lagotis* or Viscacha. This little animal has a very extended range: I have seen it as far north as lat. 28°, and in south 35°, and it may probably extend further, but I do not remember seeing it in the provinces of Chiloe or Valdivia. In the province Coquimbo, where hedges do not abound, owing to the sterility of the country, it inhabits rocky situations, living amongst the loose stones on the slopes of mountains; and it is frequently found in the caves or burrows of the Chinchilla. The natives employed in killing the 'Chinchillas,' which are not uncommon about Coquimbo and Huasco, before they commence following the burrows, which they do with crow-bars, examine the dung of the animals about the caves, and from their practical knowledge they distinguish at once if the caves

are inhabited by the Chinchilla or the Octodon. Nevertheless, as both animals often inhabit the same cave, they frequently after great labour find it only occupied by the Octodon. From observations which my long residence in Chile has given me, I am inclined to believe that the *Octodon Cumingii* does not breed more than twice during the year, viz. in spring and autumn, producing from four to six young at a birth. The favourite food of the Octodon is herbage near the hedges: but in the winter months, when pressed by hunger, it feeds on the tender bark of *Mimosa Cavenia*, also that of *Cestrum Palqui*.

“*Schizodon fuscus*—Waterh. ‘Proc. Zool. Soc. for November 1841—is found in the Valle de las Cuevas, on the eastern side of the Andes, about six leagues from the slopes of the volcano of Peteroa, at an elevation of from 5—7000 feet, in S. lat. 35°. Its favourite abode is near the mountain streams in grassy situations. There are certain places in the valley completely undermined by the workings of this animal; and whilst we were riding over these districts, our horses frequently plunged almost up to their knees in the burrows. Whilst rambling in search of the beautiful alpine plants I could not help feeling surprise at finding animals of this order in such a locality as those elevated valleys, which are covered with snow at least four months during the year. The question is, do they on the approach of snow-storms migrate towards the verge of the Pampas, or make a provision of dried grass and roots for the winter months? I should give my opinion in favour of the latter, judging from their enormous burrows. The *Schizodon fuscus* is nocturnal like *Poephagomys ater*: those I procured were shot in the evening near the entrances of their caves. I have seen them burrowing and throwing the sand out of their caves during the day; but the moment they hear a noise their labours cease and they retire deeper into their caves.

“*Notice of the new animal allied to Octodon.*—This animal is found in the vicinity of the town of Curico, in the province of Colchagua; it inhabits the hedges made of dead bushes, and does not appear to burrow, like many other species. The present species may be known by the singular chirping or whistling noise which it makes. It forms its nest in the decomposing bushes and sometimes on the surface of the ground, of dried grass, and appears to live in small communities of one or two families. This animal appears to be more rare than many other Rodents, as I have never been able to find it in any other locality, except the one above mentioned.

“*Poephagomys ater*, F. Cuvier; *Mus cyanus*, Molina.—The *Poephagomys ater* is undoubtedly the animal alluded to by Molina under the name *Mus cyanus*; his long description of its habits agrees in most respects with the habits of this little animal; but I have never yet heard it called by the natives ‘Guanque’: it is generally known in Chile by the name of Cururo and Cuyeita; Guanque is the vernacular name of a species of *Dioscorea* on which the ‘Cururo’ subsists. Molina is perfectly correct in saying that it stores up a considerable quantity of provisions, which consist of the *Dioscorea*, *Conanthera*, *Ornithogalum*, *Brodiaea*, and other bulbs and tubers which abound in the country. The poorer class of inhabitants being aware of its

habits, sound the caves or burrows, and rob them of their store, which they eat. The jaws of the Cururo are capable of extraordinary expansion, and by this provision of nature it is enabled to carry bulbs and tubers of a large size to its granary.

“The work of this little animal would surprise a person unacquainted with its habits; I have frequently seen a considerable surface of ground completely undermined by its burrows. It generally selects the slopes of hills and mountains, where bulbs are found, especially in the interior parts of the country: its caves are carried in a horizontal course, at the depth of eight or ten inches, or rather about the depth in which they meet their food.

“This little animal may be considered nocturnal, seldom or ever making its appearance during the day; those which I procured were obtained by waiting for them in the evening, and shooting them when their head scarcely emerged from their caves.

“Whilst residing in the elevated valleys of the Andes, on the eastern side, I observed on the dry slopes of the mountains the labours of a Rodent (probably a species of *Ctenomys* or *Poepthagomys*) different from any I had previously met with; the chief difference consisted in the mouth of the cave never being left open. Its mode of burrowing is similar to *Poepthagomys ater*, in being near the surface; but as I was unfortunately unprovided with traps, I could not obtain one.

“*Lagotis pallipes*, Bennett.—This is the mountain ‘Viscacha’; the specimen brought home by me, and now in the British Museum, was taken on the east side of the Andes, at an elevation of 4000 to 5000 feet, between Villavicencia and Uspallata. The specimen alluded to I found soon after sunrise near Uspallata, in a rocky valley; I saw four of these animals feeding on the scanty herbage, and at first took them to be young foxes, but my men assured me to the contrary. I gave my dog in charge of one of the men, so that I might approach them; but, unfortunately, before I got within gunshot the dog got loose. It was amusing to see these animals bound over the rugged and rocky side of the mountain, swinging their beautiful brushy tail and endeavouring to regain the caves in the rock.

“There is a mountain ‘Viscacha’ on the west side of the Andes, but not having seen it, I am unable to say if it be the *Lagotis pallipes* or another species of the same genus. This animal avails itself of caves in the rock or situations extremely rugged, where large stones lie tumbled one on another, leaving spaces between them sufficiently large to admit the body of the *Lagotis*.

“*Notice of a new species of Didelphys*.—In looking over the beautiful plates of the ‘Zoology of the Voyage of H.M.S. Beagle,’ I find three species of *Didelphys* figured, and I feel pleasure in stating that I am acquainted with another species in Chile, inhabiting the province of Colchagua. It is known to the natives by the name of ‘Llaca,’ pronounced ‘Yacu.’ In its appearance it resembles *D. elegans*, but is larger in size and possesses an extraordinary fleshy tail. In 1835, whilst some men were taking down a cottage on an estate near Curico, two of those beautiful little animals were found

in the thatch; one was taken alive, and after having it several days in my possession it by some means made its escape. It appears to be rare, although, from its having a native name, it might be imagined to the contrary; I frequently offered a reward to the natives to induce them to obtain another specimen, but never was able to procure one."

Nov. 28.—William Yarrell, Esq., Vice-President, in the Chair.

The following papers were read:—

"Descriptions of new species of the genus *Narica*, discovered by Hugh Cuming, Esq.," by M. Récluz.

Genre *NARICA*, Récluz.

Nerita species, Chemnitz; *Sigaretus* species, Lamarck; genre *Vanicoro*, Quoy et Gaimard olim; *Narica*, Récluz, in litteris; D'Orbigny (Alcide), Moll. Cuba; *Merria*, Gray in Beechey's Voyage.

1. *NARICA CIDARIS*. *Nar. testâ orbiculato-ovatâ, ventricosâ, anticè dilatâtâ, supernè depresso-planâ, solidiusculâ, lacted, plicis longitudinalibus anticè laxioribus, subregularibus, lineis elevatis transversis æquidistantibus reticulâtâ, scabriusculâ; spirâ prominulâ, semisphæricâ, apice retusâ; aperturâ subrotundâ, patulâ; labio arcuato; umbilico parvo, profundo; canali oblongo, angusto et vix arcuato.*

Hab. "From the island of Masbate, Philippines; found under stones at low water." H. Cuming.

2. *NARICA LIGATA*. *Nar. testâ ventricosò-ovatâ, tenuiusculâ, albâ, longitudinaliter supernèque tenuiter plicatâ, lineis transversis elevatis intermediis minoribus ligatâ; spirâ prominenti, rotundâ, radiatim plicatâ, apice obtusiusculâ; aperturâ subrotundâ, parvâ; umbilico pervio, spirali, profundo, latiusculo; canali brevi, largo; columellâ subrectâ, medio ad basim arcuatim rotundato.*

Hab. "From Catanuam, province of Tayabas, isle of Luzon; found under stones at low water." H. Cuming.

3. *NARICA DESHAYESIANA*. *Nar. testâ ventricosò-globosâ, tenui, fragili, subepidermide lutescente tenuissimâ exalbidd sive albâ, læviter ac creberrimè transversim striatâ; anfractibus subsenis, supernè rotundatis, longitudinaliter argutè plicatis: plicis in ultimo posticè validis, remotiusculis, anticam partem versùs evanescentibus; spirâ semirotondâ, angustè plicatâ, subacutâ; aperturâ subsemilunari; umbilico magno, patulo; canali semilunari ad sinistram et internè carinato, externè radiatim profundè ac eleganter plicato; columellâ intus et ad basim sinuatâ.*

Var. β . *Testâ ventricosò-ovatâ, subglobosâ, plicis obsoletis; infimo anfractu angustiore.*

Hab. "From St. Nicholas, island of Zebu, Philippines; found under stones at low water: and var. β from Catanuan, province of Tayabas, isle of Luzon; found under stones at low water." H. Cuming.

4. *NARICA PETITIANA*. *Nar. testâ orbiculato-ovatâ seu semiglobosâ, crassâ, albidd, obliquè et crebrè plicatâ, lineis elevatis transversis,*

irregularibus, angustioribus et remotioribus reticulatâ; anfractibus depresso-rotundatis; spirâ semisphæricâ, obtusatâ, posticè incumbente; radiatim plicatâ; aperturâ subrotundâ, dilatatâ; labio vix arcuato, margine in senioribus externè complanato, submedio vix anguloso; umbilico parvo; canali angusto, elongato, parum arcuato et angulo angusto cincto.

Hab. "From the island of Masbate, Philippines; found under stones at low water with *Narica cidaris*." H. Cuming.

Var. β . *Testâ tenuiore, plicis angustis regulariter dispositis, lineis transversis æquidistantibus clathratâ, scabriusculâ; umbilico magno, profundo, spiraliter contorto; canali latiusculo, profundo, falciformi.*

5. *NARICA CUMINGIANA.* *Nar. testâ semiglobosâ, ventricosâ, tenuiusculâ, exalbidd, transversim regulariter sulcatâ, longitudinaliter ac obliquè lineatâ, cancellatâ, scabriusculâ, ad sectiones granulatâ; spirâ prominulâ, suprâ planâ, latere carinatâ, sulcis reticulatâ et punctis valdè impressâ; apice posteriori, acuto; aperturâ dilatatâ, semilunari; umbilico profundo, coarctato, canali semilunari-oblongo, extûs annulo acuto cincto; labio supernè tenui, infernè incrassato; labro intûs submarginato.*

Hab. "From Catbalonga, island of Samar, Philippines; found in coarse sand at ten fathoms." H. Cuming.

6. *NARICA PPLICATA.* *Nar. testâ ventricoso-ovatâ, subglobosâ, solidâ, albâ, longitudinaliter grossè plicatâ, lineis elevatis crebrioribus costas decussantibus circumcinctâ; anfractibus supernè depresso-planiusculis; spirâ prominulâ, laterali, subacutâ; aperturâ subrotundâ; umbilico latiusculo, profundo, spirali; canali semilunari, crenulis profundis extûs cincto; columellâ arcuatâ, basi et anticè gibbosiusculâ.*

Hab. "From the island of Ticao; found under stones at low water." H. Cuming.

7. *NARICA GUERINIANA.* *Nar. testâ orbiculato-ovatâ, depressâ, subconoided, subtûs planâ, crassâ, albido-lutescente, obliquè costatâ; costis rotundatis sulcis majoribus, interdum æqualibus, lineis transversis creberrimis eleganter cinctâ; spirâ semiglobosâ, obtusiusculâ; aperturâ semilunari, patulâ; umbilico profundo, extûs dilatato, in canalem latum, semisphæricum, extûs angulatum explanato; columellâ rectâ, suprâ lined tenuiter impressâ instructâ.*

Hab. "From the island of Capul, Philippines; found under stones at low water." H. Cuming.

8. *NARICA DISTANS.* *Nar. testâ parvâ, orbiculato-conicâ, tenuiusculâ, pellucidâ, albidd, costis longitudinalibus obliquis, angustis acutis valdè remotis, regulariter radiatâ, interstitiis sub lente tenuissimè et creberrimè striatis; spirâ exertiusculâ, gradatâ, conico-acutâ; aperturâ semirotondâ; umbilico dilatato, profundo; canali largo, semicirculari, intûs striato, extûs angulo acuto circumdato.*

Hab. "From Jacna, isle of Bohol, Philippines; found under stones at low water." H. Cuming.

9. *NARICA ROSEA.* *Nar. testâ minimâ, semiglobosâ, roseâ, tenui,*

striato-cancellatâ, regulariter granosâ ; anfractibus tribus, supernè depresso-planiusculis ; spirâ prominulâ, apice lævi, mammillatâ, rubicundâ ; aperturâ semirotondâ ; columellâ rectiusculâ, albâ, umbilico largo, extûs in canalem latiusculum, semiorbicularem producto ; labro intûs striato.

Hab. The Moluccas (M. Hardouin-Michelin).

10. *NARICA GRANULOSA.* *Nar. testâ parvâ, semiglobosâ, tenui, subpellucidâ, albâ sive albido-lutescente ; anfractibus supernè planulatis, ferè gradatis, transversim regulariter striato-costatis ; costis angustioribus obliquè striatis ac cancellato-granosis ; spirâ prominulâ, semiglobosâ, acutâ ; aperturâ semirotondâ, vitreâ ; columellâ tenui vix arcuatâ ; umbilico profundo ; canali latiusculo, semicirculari.*

Var. β. Testâ albo-vitreâ, hyalind.

Hab. The Moluccas and New Holland.

11. *NARICA ORBIGNYANA.* *Nar. testâ ovato-globosâ, crassiusculâ, lacteâ, transversim cingulatâ : cingulis 5-6 obtusis, majoribus, lineis longitudinalibus decussantibus, cancellato-granosâ ; spirâ planissimâ, ad peripheriam tricarinatâ : carinis obtusis, infimis majoribus ; apice valdè laterali, acuto, hyalino, lævissimo ; aperturâ ovato-rotundatâ ; columellâ basi crassiusculâ et anticè calloso-gibbâ, supernè tenuissimâ ; umbilico minimo, subclauso ; canali lineari subrecto.*

Coll. M. Récluz.

Hab. New Holland, on the coast of the island Maria.

12. *NARICA BLAINVILLEANA.* *Nar. testâ ovato-globosâ, anticè dilatatâ, striis transversis inæqualibus aratâ, posticè tenuiter plicatâ : plicis anticè obsoletis ; spirâ parvulâ, semisphæricâ, regulariter plicatâ, laterali, apice fuscâ ; aperturâ subrotundâ, lacteâ ; columellâ arcuatâ, basi et intûs subcompressâ ; umbilico profundo, angusto, in canalem semilunarem producto ; labro rotundato, intûs lævissimè striato.*

Hab. The Moluccas.

13. *NARICA SIGARETIFORMIS.* *Nar. testâ globoso-acutâ, tenui, exalbâ, pellucidâ, fragili ; anfractibus 5-6 transversim subtilissimè striatis ; spirâ prominenti, conico-acutâ ; apice elongato, corneo-fusco ; aperturâ semirotondâ ; columellâ tenuissimâ, vix rectâ ; umbilico rotundato, dilatato, profundo, spirali, in canalem subsenis oblongum producto.*

Velutina Sigaretiformis, Potier, Gal. Moll. Mus. Douai, pl. 39. f. 21, 22, malæ.

Hab. New Holland.

Prof. Owen read the second and concluding part of his memoir on the *Dinornis* *.

The arrival of the second box of specimens of the bones collected by the Rev. W. Williams in Poverty Bay, New Zealand, which had been placed by Dr. Buckland in Mr. Owen's hands, had enabled him to confirm his former account of the generic characters and ordinal

* See vol. xii. p. 444.

affinities of the apparently extinct *Dinornis*, and also to distinguish remains of five species of that genus.

The bones of the foot, and especially the tarso-metatarsal bone, established three distinct species, the largest of which the author proposed to call *Dinornis giganteus*; the next in point of size he termed *Din. struthioides*, and the third *Din. didiformis*. The common generic characters of the tarso-metatarsi of these species were first pointed out, and then their specific differences of proportion and figure. The maturity of the different-sized bones indicating the above species was demonstrated by reference to the long retention of immature characters in the same bone of existing *Struthionidæ*, and by the fact of a tarso-metatarsal bone of a half-grown *Dinornis giganteus* manifesting the same incomplete coalescence of its primitively distinct elements; showing that the *Dinornis*, like the Ostrich, had a tardy ossification of the skeleton, as compared with birds of flight. The tibiæ were next described; one of these, belonging to a mature bird, established a species smaller than the *Din. didiformis*, and which, from its similarity of stature to the great Bustard (*Otis tarda*), Prof. Owen proposed to call *Dinornis otidiformis*. The largest tibia, belonging to the *Din. giganteus*, presented the extraordinary dimensions of two feet eleven inches. The shaft of a smaller tibia, about two feet long when entire, was referred to the *Din. struthioides*, and there were four entire tibiæ of the *Din. didiformis*. In the series of femora, after the description of the generic characters of the bone, the specimens were pointed out which belonged to the *Dinornithes giganteus*, *struthioides*, *didiformis*, and *otidiformis*, and two other entire femora were described and their distinctive characters shown, which indicated, unequivocally in the author's opinion, a fifth species of *Dinornis*, of the size of the Emeu, and which was, therefore, named *Din. dromæoides*.

Three pelves, more or less perfect, and portions of two others, were described, and were referred to the *Din. giganteus*, *dromæoides*, and *didiformis*. Three cervical and two dorsal vertebræ also indicated three distinct species of *Dinornis*, and all of them presented the common character of unusual strength of the spinous and transverse processes. Comparative dimensions of most of the bones exhibited were given. No part of the skull, sternum, ribs or wing-bones had been transmitted, but Prof. Owen proceeded to point out the physiological grounds for concluding that the development of the anterior extremities must have presented in the *Dinornis* an intermediate condition between that in the Emeu and that in the Apteryx.

The author then gave his calculations, from the analogies of existing Struthious birds, of the height of the different species of *Dinornis*. The largest, *Din. giganteus*, according to the proportions of the Ostrich, must have stood ten feet five inches, but according to those of the Cassowary, nine feet five inches; its average stature might be taken at ten feet. A diagram of the great extinct bird, restored according to these proportions, was exhibited.

The *Dinornis struthioides* was seven feet high, which is the average stature of the *Struthio Camelus*.

The length of the tibia and metatarsus of the *Din. dromæoides* not yet being known, the height of five feet was assigned to it as a probable one; its femur corresponds in size with that of the Emeu, whose average measurement in captivity is between five and six feet.

The height of the *Din. didiformis* was four feet; exceeding, therefore, the extinct Dodo (*Didus ineptus*), but evidently resembling it in its stouter proportions and shorter metatarsus, as compared with the other species of *Dinornis*.

Prof. Owen next proceeded to consider the evidences of tridactyle birds afforded by the impressions in the New Red Sandstone of Connecticut, called 'Ornithichnites,' and having pointed out the proportions of the tarso-metatarsal bone in existing Struthious birds to their foot-prints, indicated thereby the size of the same bone in different *Ornithichnites*, and reciprocally the sizes of the foot-prints of the different *Dinornithes*, from those of their tarso-metatarsal bones.

The two phalanges of the *Dinornis*, which were described and compared in this section of the memoir, afforded pretty clear indications of the form and proportions of the toes in the two species (*giganteus* and *didiformis*) to which they were referred. These data showed that the trifid foot-print of the *Dinornis giganteus* must have exceeded in size the *Ornithichnites giganteus* and *O. ingens* of Prof. Hitchcock, and that the *Din. didiformis* must have left impressions as large as those called *Ornithichnites tuberosus*. The author warned his hearers against inferring identity of species or even genus between the extinct *Struthionidæ* of the alluvium of New Zealand and those of the trias of North America, on account of correspondence of size and number of toes, which the modern genera *Casuaris*, *Rhea*, &c. proved to be insufficient grounds. He concluded by a comparative review of recent and extinct *Struthionidæ*, remarking on their peculiar geographical distribution, on the conditions which favoured the former existence of so rich a development of the family in New Zealand, and on the probable causes of their extermination. Evidence of the recent character of the bones described was afforded by the great proportion of animal matter which they retained, and the details of the analysis of the earthy salts were promised for a future Meeting.

December 12.—William Yarrell, Esq., V.P., in the Chair.

Mr. Gould laid before the Meeting an extensive series of Toucans, and called attention to two species which had not hitherto been characterized, viz.:—

RAMPHASTOS CITREOLEMUS. *Ramp. rostro nigro, vittâ latâ basali, et culmine olivaceo-viridibus, hâc colore gradatim cum flavido apud apicem mandibulæ utriusque se commiscente; ptilose nigrâ; gula albâ; pectore sulphureo, vittâ splendide coccineâ cincto; tectricibus caudæ superioribus sulphureis.*

Bill black, with a very broad basal band, and the culmen of an olive-green, passing into pale yellow on the points of both mandibles, and deepening into orange at the gape; the ridge round the base of the bill black; crown of the head, back of the neck, all the upper surface, wings, tail, breast, abdomen and thighs deep black; throat

white; chest sulphur-yellow, bounded below by a band of rich deep scarlet; upper tail-coverts sulphur-yellow; under tail-coverts rich deep scarlet.

Total length, 21 inches; bill, $5\frac{1}{2}$; wing, $8\frac{1}{4}$; tail, $7\frac{1}{2}$; tarsi, $1\frac{3}{4}$.

Hab. Santa Fé de Bogota.

In the collection of Prince Massena at Paris, and in my own.

PTEROGLOSSUS PÆCILOSTERNUS. *Pt. culmine rostri, strigd angustâ ad basim mandibulâ superioris; sic et mandibulâ inferiore totâ nigerrimis; mandibulis utrisque ad basim lined prominente angustâ aurantiacâ circumdatis; mandibulâ superioris lateribus bellè aurantiacis; capite et guldâ splendidè nigerrimis; dorso, alis caudâque saturatè viridi-olivaceis; corpore inferiore sulphureo, vittâ pectorali nigrâ, alterâ sanguinèâ.*

Culmen, a narrow band down the base of the upper mandible and the whole of the under mandible deep black; narrow elevated ridge surrounding the base of both mandibles orange; sides of the upper mandible beautiful orange, fading into white towards the tip, which is stained with red; head and throat deep glossy black; back, wings and tail dark olive-green; rump and upper tail-coverts rich deep blood-red; all the under surface sulphur-yellow, crossed on the chest by an irregular band of black, and on the breast by another of deep blood-red; the interspaces stained with scarlet; thighs chestnut, each feather slightly fringed with sulphur-yellow.

Total length, 18 inches; bill, $4\frac{1}{4}$; wing, 6; tail, $7\frac{1}{4}$; tarsi, $1\frac{3}{8}$.

Hab. Santa Fé de Bogota.

In the collection of Prince Massena at Paris.

Professor Owen read a communication on the Rudimental Marsupial Bones in the *Thylacinus*:—

The marsupial bones, as bones, do not exist in the Dog-headed Opossum or Hyæna of the Tasmanian colonists (*Thylacinus Harrisii*, Temm.); they are represented by two small, oblong, flattened fibro-cartilages, imbedded in the internal pillars of the abdominal rings, and appear each as a thickened part of the tendon of the external oblique abdominal muscle, which forms the above pillar. The length of the marsupial fibro-cartilage is six lines, its breadth from three to four lines, its thickness one line and a half.

This was the condition of the rudimental marsupial bones in two full-grown females and one male specimen of the *Thylacinus*: in a fourth large and old male a few particles of the bone-salts were deposited in the centre of the fibro-cartilage, occasioning a gritty feeling when cut across by the knife.

This unexpected and very remarkable modification of the most characteristic part of the skeleton of the Marsupialia, in one of the largest of that order, has many important bearings upon the physiology of the problematical 'ossa marsupialia.' They have been most commonly supposed to serve for the support of the marsupial pouch and young; but this pouch is well developed in the female Thylacine, and in one of the specimens which I dissected four well-developed teats, each two inches long, indicated that it had contained four

young ones when, or shortly before, it was killed. The existence of the marsupial bones in the male as well as the female sex in other marsupial animals had already invalidated the above physiological explanation, and it equally opposes the idea of the use of the marsupial bones, propounded by M. de Blainville,—that they aid in the compression required to expel the embryo. Besides, it is not in the females of those animals which give birth to the smallest young that we should expect to find auxiliary bones for increasing the power of the muscles concerned in parturition. My view of the uses of the marsupial bones, as explained in the ‘Philosophical Transactions’ for 1834, is, that they relate more immediately to an increase of power in the muscles (*cremasteres*) which wind round them, than of those implanted in them: and to the extent to which the cartilaginous representatives of the ossa marsupialia in the Thylacine strengthen the pillars of the abdominal ring, they must increase the contractile force of the compressors of the mammary glands and teats, which are situated and surrounded by the *cremasteres* in the Thylacine, as in other Marsupialia. Nevertheless, the almost obsolete condition of the ossa marsupialia in the Thylacine, and their very various relative sizes in other Marsupialia, are circumstances which seem incompatible with the same kind and degree of use in all the species: they are very slender, and not above half an inch in length in the *Myrmecobius*, whilst in the Koala they nearly equal the iliac bones in size. The so-called ‘pyramidales’ muscles, which derive a great proportion of their origin from the ossa marsupialia, bear a direct ratio to those bones in size; and an attentive observation of the habits and modes of locomotion of the different marsupial species is still wanting for a complete elucidation of the function of the marsupial bones. It is important to the palæontologist that the cartilaginous condition of the marsupial bones in the Thylacine should be borne in mind in regard to the evidences of the marsupial order that may be yielded by fossil remains: the fossil pelvis of the Thylacine, for example, had that species been long ago, as it soon is likely to be, extinct, would never have afforded the triumphant evidence to which Cuvier appealed in demonstration of the *Didelphys* of the gypsum quarries at Montmartre; yet the Thylacine would not therefore have been less essentially a marsupial animal. This may teach us to pause before drawing a conclusion against the marsupial character of the small Stonesfield mammalia, if their pelvis should ever be found without trace of the ossa marsupialia.

“Descriptions of new Shells, collected during the voyage of the Sulphur, and in Mr. Cuming’s late visit to the Philippines,” by Mr. Hinds.

Abstract of the accompanying descriptions of shells:—

The number of well-authenticated species of *Terebra* hitherto on record is about sixty. In the present paper exactly fifty more are added, all of which are presumed to have been hitherto unrecorded. Of this number sixteen are from the Indian seas, six are from the African seas, twelve are from the American seas, and five are from

the Pacific ; and the whole, without exception, from within the Tropics. The localities of eleven are unknown.

They most usually occur under a small incumbent pressure, generally at a depth of from five to eighteen fathoms. Some are found about low water, and with much constancy they affect situations where the floor of the ocean is composed of sandy mud.

TEREBRA, Bruguière.

TEREBRA ROBUSTA. *Ter. testâ turrito-subulatâ, solidâ, ponderosâ, albidâ, flammeis longitudinalibus interruptè pictâ; anfractibus inferioribus rotundatis, indivisis, lævigatis, superioribus versùs extremitatem spiræ subplanulatis, unocinguliferis, longitrorsum plicatis; anfractu ultimo rotundato triseriatim picto, ad basin coarctato; aperturâ elongatâ; columellâ arcuatâ, subcallosâ; epidermide luteofusca; operculo parvo, crasso.* Axis 57 lin.

Hab. West coast of America, between 8° 57' and 21° 32' north latitude; namely at Panama, Gulf of Nicoya, Gulf of Papagayo, and San Blas: in from four to eighteen fathoms, sandy mud.

Cab. Belcher and Cuming.

TEREBRA SUCCINEA. *Ter. testâ subulatâ, acuminatâ, succinea, lævigatâ; anfractibus planulatis, lineâ impressâ divisâ, longitrorsum plicis obsoletis vel lineis arcuatis incrementi minutis, transversim infrâ lineam impressam, leviter striatis; areâ subconcavi, punctis parvis fuscis distantibus biseriatis cinctâ, versus margines tuberculato-incrassatâ.* Axis 54 lin.

Hab. — ?

Cab. Cuming.

Two specimens of this elegant species are in the above collection, without any history attached to them; they have evidently been highly cleaned, but retain the appearance of having been once covered by an epidermis.

TEREBRA CONSORS. *Ter. testâ gradatim subulatâ, lævigatâ, politâ, albidâ, flammeis pallidis fuscis ornatâ; anfractibus subplanulatis, supernè lineâ impressâ divisâ, areâ superiore spiræ leviter tuberculatâ; anfractu ultimo prope basin fasciato; aperturâ infernè subeffusâ; columellâ breviusculâ.* Axis 31 lin.

Hab. Tahiti, Society Islands.

Cab. Cuming.

Its nearest ally is *T. dimidiata*, than which it is far more gradually subulate; the upper area of the divided whorl is raised and somewhat rounded; the white is the base colour of the shell, and the last whorl is distinctly banded.

TEREBRA SPECTABILIS. *Ter. testâ subulatâ, lævigatâ, politâ; anfractibus supernè sulco impresso divisâ, infrâ longitrorsum plicatis, interstitiis lævigatis, medio saturatè castaneis, infernè albis; cingulo tuberculato, albido; anfractu ultimo fasciato; columellâ elongatâ.* Axis 13½ lin.

Hab. Guinea, on the sands; Humphrey. Sumatra, on the sands: Ellis.

Cab. Cuming.

TEREBRA BICINCTA. *Ter. testá subulatá, lævigatá, nitidá; anfractibus rotundatis, indivisis, longitrorsum plicatis, supernè areá coarctatá, transversim biseriátim super plicas minutè tuberculatis; plicis tenuibus, acutis, interstitiis lævigatis; anfractu ultimo concolore.*
Axis $12\frac{1}{2}$ lin.

Hab. — ?

Cab. Cuming. Unique.

Remarkably and very distinctly characterized by the two rows of small tubercles which encircle the whorls. The shell is otherwise of an uniform white glassy colour, which might be attributable to its condition.

TEREBRA FATUA. *Ter. testá turrítò-subulatá, albidd, lævigatá, politá; anfractibus subplanulatis, superioribus lineá impressá cinctis, maculis fuscis pallidis distantibus biseriátim ornatis; spirá obsoletè plicatá; anfractu ultimo elongato, maculis exceptis, unicolore.*
Axis 34 lin.

Hab. St. Christopher, West Indies; on the sand: Mr. Miller, 1799.

Cab. Cuming.

TEREBRA NIMBOSA. *Ter. testá elongatè conico-subulatá, acuminatá, lacteá, strigis longitudinalibus nubeculatá; anfractibus planulatis, lævigatis, politis, integris, infernè propè suturam albá, angustè fasciatá, ultimo fasciato; columellá lævi, truncatá.* Axis 25 lin.

Hab. — ?

Cab. Cuming.

TEREBRA COPULA. *Ter. testá elongatè turrítò-subulatá, acuminatá, lævigatá, nitidá, saturatè castaneá; anfractibus subrotundatis, supernè cingulo tuberculato cinctis, infrá plico-costatis; cingulo atro-castaneo fasciato, rarè intervallis tantùm maculato, interstitiis lævigatis; anfractu ultimo parvo, rotundato, propè basin duabus fasciis albis angustis ornato.* Axis 17 lin.

Hab. Guinea, on the sands: Humphrey.

Cab. Cuming.

TEREBRA ALVEOLATA. *Ter. testá turrítò-subulatá, attenuatè acuminatá, nitidá, fuscá; anfractibus subplanulatis, supernè cingulo tuberculato cinctis, infrá plico-costatis, interstitiis striatis; cingulo et anfractu ultimo albo fasciato, maculis quadratis rufis articulato.* Axis 16 lin.

Hab. Straits of Malacca; in seventeen fathoms, among mud.

Cab. Belcher.

The description is drawn up from a somewhat young specimen, and the mouth and last whorl have not yet attained their full development. The character of the shell is however very conspicuous. In this genus the last whorl will be found very frequently to offer decided features, and becomes a valuable aid in the diagnosis.

TEREBRA PULCHRA. *Ter. testá turrítá, conico-subulatá, acuminatá, nitidá, pallidá; anfractibus subplanulatis, longitrorsum rectè plico-costatis, supernè lineá impressá cinctis, interstitiis lævigatis; anfractu ultimo pallidè lineato.* Axis 11 lin.

Ann. & Mag. N. Hist. Vol. xiv.

F

Hab. Marquesas ; in seven fathoms.

Cab. Belcher.

Perhaps more nearly resembling *T. plicata* than any other species, from which, with a little care, the description will suffice to distinguish it. The specimens were collected at the Marquesas group of islands, which scarcely offer any particular novelty in any department of natural history ; and the greatest exception will be found among *Terebra*, of which it has a few peculiar species, and also some interesting varieties of other well-known kinds. Indeed, though the group is by no means the metropolis of the genus, the species would seem to exist here under some peculiar circumstances.

TEREBRA COLUMELLARIS. *Ter. testâ elongatâ, subcylindrâ, turrito-subulatâ, aurantiâ albo nebulosâ ; anfractibus subrotundatis, longitrorsum undatè plico-costatis, supernè lineâ impressâ cinctis ; interstitiis rufis, striatis ; anfractu ultimo breviusculo, rotundato, albo fasciato.* Axis 19 lin.

Hab. — ?

Cab. Cuming.

Remarkable from its great similarity to *T. undulata*, which is itself a peculiar species. The grounds of distinction are its decidedly cylindrical shape, different distribution of the colour, and its short, abrupt, rounded and banded last whorl.

TEREBRA NITIDA. *Ter. testâ obeso-subulatâ, acuminatâ, pallidè plumbeâ, politâ ; anfractibus subplanulatis, rectè plico-costatis, supernè interstitiis lineâ punctatâ cinctis, ultimo parvo subattenuato, unicolore, plicis evanidis ; labio interno producto ; labro anticè subsinuoso.* Axis 10 lin.

Hab. Marquesas ; in seven fathoms, sandy mud.

Cab. Belcher.

An excellent diagnostic character exists in this species, in the circumstance that the girdling line which traverses the upper part of each whorl does not cross the ribs, but is confined to the interstices.

TEREBRA VARICOSA. *Ter. testâ elongatè conico-subulatâ, acuminatâ, nitidâ ; anfractibus subplanulatis, plico-costatis, supernè cingulo tuberculato contractato cinctis ; costis subdistantibus albidis, interstitiis striatis fuscis ; anfractu ultimo breviusculo, rotundato, albo fasciato ; columellâ contortâ.* Axis 11 lin.

Hab. Gulf of Papagayo, west coast of Central America ; in twenty-three fathoms, mud.

Cab. Belcher.

TEREBRA LAURINA. *Ter. testâ elongatè subulatâ, acuminatâ, lævigatâ, politâ, olivaceâ ; anfractibus planulatis, plicis tenuibus sinuosis, capillaribus, infrâ evanidis, supernè lineâ impressâ obsoletâ cinctis, ultimo unicolore, lævigato ; aperturâ fuscâ ; columellâ lævi, subtruncatâ.* Axis 32 lin.

Hab. Western Africa ; in sandy mud : Rev. W. V. Hennah.

Cab. Cuming.

The impressed line is always faint, and sometimes not at all visible.

The specimens are nearly of an uniform colour, but a band of somewhat deeper colour traverses the upper portion of each whorl.

TEREBRA STYLATA. *Ter. testâ subulatâ, acuminatâ, politâ, olivacâ; anfractibus subplanulatis, integris, numerosè plicatis, infrâ evanidis, propè suturam albidis maculis fuscis interruptè fasciatis, ultimo lævigato, infernè albo angustè fasciato; aperturâ fuscâ; columellâ lævi, subtruncatâ.* Axis 21 lin.

Hab. Japan; Philippine Islands.

Cab. Cuming.

TEREBRA TUBEROSA. *Ter. testâ turrîto-subulatâ, saturatè fulvâ, nitidâ; anfractibus rotundatis, longitrorsum costatis, supernè cingulo numerosè tuberculato; costis brevibus; nodulosis striis decussantibus; columellâ contortâ.* Axis 11 lin.

Hab. Ticao, Philippines.

Cab. Cuming. Unique.

In this characteristic species the girdle consists of a number of small tubercles, superior in number to the vertical ribs.

TEREBRA CONSPERSA. *Ter. testâ turrîto-subulatâ, nitidâ, albâ; anfractibus subrotundatis, plico-costatis, supernè lined impressâ, præcipuè interstitiali, cinctis, propè suturam punctis rufis rarè conspersis, interstitiis striatis; anfractu ultimo ad basin fulvo.* Axis 10 lin.

Hab. Catbalonga, island of Samar, Philippines; eight fathoms, sandy mud.

Cab. Cuming.

A pretty little species, only known to me through the two specimens in the above collection; and it will readily be distinguished by its sparsely scattered rufous spots and orange base.

TEREBRA LINGUALIS. *Ter. testâ turrîto-subulatâ, albidd, flammeis atro-fuscis longitudinalibus ornatâ; anfractibus planulatis, duabus lineis impressis divisis, infrâ suturam tuberculatis; areâ inferiore lævigatâ; anfractu ultimo subrotundato, lævigato, fasciato; aperturâ quadratâ; columellâ contortâ.* Axis 30 lin.

Hab. Gulf of Papagayo, Bay of Montejo, west coast of America; ten to seventeen fathoms, sandy mud.

Cab. Belcher and Cuming.

The whorls, particularly those of the spire, are divided into three spaces by two girdling lines; the lower area is smooth, but the two others, particularly the most superior, is tubercled. It is a handsome species, from the deep reddish-brown flames with which it is covered.

TEREBRA LIGATA. *Ter. testâ elongatè subulatâ, acuminatâ; anfractibus planulatis, transversim striatis, cingulis duobus tuberculatis, cingulo superiore et areâ inferiore maculis quadratis fuscis transversis ornatâ, cingulo inferiore minore albidâ concolore; anfractu ultimo parvo, biserialim maculato.* Axis 15½ lin.

Hab. Marquesas; in seven fathoms, sandy mud.

Cab. Belcher.

TEREBRA FUNICULATA. *Ter. testâ elongatè subulatâ, nitidâ, fulvâ;*

anfractibus numerosis, planulatis, supernè cingulo lævi lineá impressá diviso, infrà cingulo minore, areá inferiore transversim striatá; anfractu ultimo brevi, medio sulco unico; aperturá parvá, concolore; labio interno subcalloso, producto. Axis 23 lin.

Hab. —?

Cab. Belcher and Cuming.

TEREBRA FENESTRATA. *Ter. testá elongatè conico-subulatá, pallidè fulvá; anfractibus planulatis, supernè cingulo nodulifero, infrà secundo minore, infernè cancellatis; apice subpapillari; anfractu ultimo quadrato ad basin abruptè contractato; aperturá parvá; labio interno subcalloso, producto. Axis 15 lin.*

Hab. San Nicholas, island of Zebu, Philippines; sandy mud at low water.

Cab. Cuming.

TEREBRA EBURNEA. *Ter. testá obeso-subulatá, albá; anfractibus lævigatis, nitidis, supernè lineá impressá, infernè uni- vel biserialim lineis punctatis cinctis; anfractu ultimo quinis seriebus linearum punctarum; aperturá elongatá; columellá lævi, breviusculá. Axis 16 lin.*

Hab. Seychelles.

Cab. Belcher. Unique.

TEREBRA AMANDA. *Ter. testá elongatè conico-subulatá, nitidá; anfractibus planulatis, supernè cingulo tuberculato margaritaceo cinctis, infrà secundo minore concolore, infernè aurantiacis biserialim punctato-lineatis, ultimo brevi; columellá contortá. Axis 11 lin.*

Hab. Straits of Macassar; in eleven fathoms, coarse sand.

Cab. Belcher.

An uncommonly pretty shell, offering an elegant contrast between the row of pearly tubercles and the general orange colour.

TEREBRA VIOLASCENS. *Ter. testá turritá, cylindraceo-subulatá, violacéá; anfractibus rotundatis, longitrorsum obliquè plico-costatis, supernè lineá impressá obsoletè cinctis; costis subconfertis, interstitiis crebrè striatis; aperturá parvá, elongatá; labio interno producto. Axis 15 lin.*

Hab. New Guinea; in seven fathoms, mud. San Nicholas, Zebu, and Mindanao, Philippines; in twenty to thirty fathoms.

Cab. Belcher and Cuming.

The Philippine specimens are of a different colour, and disposed to be banded, but they have the appearance of dead shells. The species is very like an American fossil from Alabama, *T. venusta*, Lea.

TEREBRA ARMILLATA. *Ter. testá turrito-subulatá, acuminatá, fuscá; anfractibus planulatis, longitrorsum subdistanter plico-costatis, transversim lineis definitis impressis, supernè cingulo noduloso, ætate valdè notabili; anfractu ultimo subquadrato, ad basin albo fasciato; aperturá atro-fuscá; columellá contortá. Axis 22 lin.*

Hab. Abundant in various localities on the west coast of America between Panama and the Bay of Magdalena in Lower California, in from five to thirteen fathoms; also at the Galapagos, in ten fa-

thoms : chiefly in sandy situations. It was also found imbedded in the fossiliferous cliffs which surround a portion of the Bay of Magdalena.

Cab. Belcher and Cuming.

TEREBRA ASPERA. *Ter. testá turrito-subulatá, acuminatá, pallidá, aurantiacá vel fuscá; anfractibus subrotundatis, longitrorsum subconfertè plico-costatis, nodulosis liris transversis decussantibus, supernè cingulo plico-nodulifero sparsim fusco maculato; anfractu ultimo rotundato, ad basin albo fasciato; aperturá colorem testæ simulante; columellá plicatá.* Axis 23 lin.

Hab. Panama, Monte Christi, St. Elena, west coast of America; in from six to ten fathoms, sandy mud.

Cab. Cuming.

TEREBRA TUBERCULOSA. *Ter. testá turrito-subulatá, acuminatá, olivacéd; anfractibus planulatis, lævigatis, politis, supernè cingulo tuberculato, areá inferiore triseriatim tuberculato, seriebus duabus superioribus frèquenter subevanidis; anfractu ultimo subquadrato, unicolore, multiseriatim tuberculato; columellá contortá.* Axis 24 lin.

Hab. Panama, Gulf of Papagayo, and San Blas; in from four to eleven fathoms.

Cab. Belcher.

TEREBRA SPECILLATA. *Ter. testá gracilè turrito-subulatá, valdè acuminatá, albá, rufo sparsim maculatá et nebulosá; anfractibus subplanulatis longitrorsum subdistanter tenuè plico-costatis, transversim leviter striatis, supernè cingulo tuberculato, interstitiis tubercolorum præcipuè pictis; anfractu ultimo fasciato; aperturá parvá; columellá subrectá.* Axis 20 lin.

Hab. San Blas; from seven fathoms, sandy mud.

Cab. Belcher.

TEREBRA INTERTINCTA. *Ter. testá turrito-subulatá, pallidá vel cærulescente; anfractibus planulatis, politis, duabus vel tribus lineis transversis, supernè cingulo tuberculato, infernè obsoletè tuberculo-plicatis, interstitiis tubercolorum fusco maculatis; anfractu ultimo subrotundato, uniseriatim tuberculato, interstitiis nebulosis; aperturá ovali.* Axis 20 lin.

Hab. Gambia; among sandy mud.

Cab. Cuming and Saul.

TEREBRA RADULA. *Ter. testá turrito-subulatá, fulvá, nitidá; anfractibus rotundatis, plicis tuberculatis longitudinalibus et transversis cancellatis, propè suturam serie tubercolorum majusculorum; anfractu ultimo ad basin albo angustè fasciato; aperturá oblongá, concolore.* Axis 19 lin.

Hab. Puerto Portrero, west coast of America; in thirteen fathoms, coral sand.

Cab. Cuming. A single specimen.

TEREBRA BIFRONS. *Ter. testá turrito-subulatá, lævigatá, fuscá; anfractibus rotundatis, inferioribus multiseriatim tuberculatis, su-*

terioribus longitrorsum biseriatim tuberculo-plicatis; tuberculis parvis approximatis, interstitiis lævibus; aperturâ oblongâ; columellâ rectiusculâ, subtruncatâ. Axis 23 lin.

Hab. Japan; sandy mud: Dr. Siebold.

Cab. Cuming. Unique.

TEREBRA GLAUCA. *Ter. testâ turrito-subulatâ, acuminatâ, glaucescente; anfractibus rotundatis, eleganter cancellatis, propè suturam cingulo albido tuberculato; anfractu ultimo elongato, pallidè fasciato; aperturâ ovali; columellâ contortâ. Axis 14 lin.*

Hab. — ?

Cab. Cuming. Unique.

TEREBRA LARVÆFORMIS. *Ter. testâ subcylindraced, turrito-subulatâ, fuscâ, nitidâ; anfractibus brevibus rotundatis, longitrorsum plicocostatis, supernè lined impressâ contractatis; costis rotundatis vel varicosis, interstitiis leviter striatis; anfractu ultimo breviusculo, pallidè fasciato; aperturâ pallidâ. Axis 23 lin.*

Hab. St. Elena, Monte Christi, west coast of America; in from six to fifteen fathoms, sandy mud.

Cab. Cuming.

I have examined a number of specimens of this shell, all of which I refer to this species, and find them vary much in the general and relative proportion of their outline and width of whorls.

TEREBRA ELATA. *Ter. testâ subcylindraced, elongatè turrito-subulatâ, pallidè fulvâ; anfractibus ferè planulatis, longitrorsum plicatis, supernè lined impressâ cinctis; plicis approximatis, interstitiis striatis, anfractu ultimo ad basin et propè suturam fusco; aperturâ elongatâ. Axis 12 lin.*

Hab. Bay of Montijo, west coast of America; in fifteen fathoms, coarse sand.

Cab. Cuming.

TEREBRA TEXTILIS. *Ter. testâ turrito-subulatâ, pallidè luted; anfractibus ferè planulatis, longitrorsum plicatis, supernè lined punctato-impressâ cinctis, serie tuberculorum deindè excisâ albidâ; plicis approximatis, interstitiis striatis; anfractu ultimo parvo, unicolore; columellâ plicatâ, labio interno producto. Axis 11½ lin.*

Hab. Sorsogon, Bay of Manila, Philippines; Straits of Macassar; in from six to thirteen fathoms, sand and coarse gravel.

Cab. Cuming and Belcher.

This Asiatic species very closely resembles the American just described, and furnishes another of those instances of affinity, whilst still retaining unquestionable distinctness, which occur so frequently in the shells of the tropics of the two hemispheres; and thus whilst both are enriched by similar forms, these present themselves under slight but constant differences.

TEREBRA PICTA. *Ter. testâ subcylindraced, turrito-subulatâ, nitidâ, pallidè aurantiacâ, atro-fusco longitrorsum maculatâ vel nebulosâ; anfractibus rotundatis, supernè cingulo tuberculato, infrâ plicocostatis, interstitiis striatis; anfractu ultimo fasciato; aperturâ parvâ, atro-fuscâ; columellâ subrectâ. Axis 15 lin.*

Hab. San Nicholas, island of Zebu, Philippines.

Cab. Cuming.

TEREBRA CASTA. *Ter. testá turrito-subulatá, albescente, lævigatá, politá; anfractibus integris, planulatis, supernè plicatis et lacteo fasciatis, infrà lævigatis, strigis longitudinalibus pallidè fuscis nebulosis; anfractu ultimo subelongato, lacteo fasciato; columellá brevi, subrectá.* Axis 13 lin.

Hab. Ilo-ilo, island of Panay, Philippines, at low water.

Cab. Cuming.

TEREBRA INCONSTANS. *Ter. testá obeso-subulatá, acuminatá, lividá vel pallidá, politá; anfractibus integris, subrotundatis, longitrorsum plicatis, interstitiis lævigatis; infra suturam et ad basin anfractús ultimi pallidè fasciatá; aperturá effusá; columellá truncatá, subcallosá.* Axis 16 lin.

Hab. Sandwich Islands.

Cab. Cuming.

This species has much of the general character of *T. anomala*, but the whorls are constantly entire, and the shells are more acuminate and obese.

TEREBRA PENICILLATA. *Ter. testá turritá, obeso-subulatá, lævigatá, politá, albá lineis undatis rufis longitrorsum dispositis; anfractibus integris, ultimo elongato, efasciato; spirá obsoletè plicatá; aperturá elongatá; columellá lævi.* Axis 17 lin.

Hab. Seychelles.

Cab. Belcher and Cuming.

TEREBRA VENOSA. *Ter. testá subcylindræo-subulatá, lævigatá, politá; anfractibus integris, subplanulatis, supernè albo, infrà purpureo cinctis, strigis rufis longitudinalibus flexuosis; spirá plicatá, anfractu ultimo subrotundato, rariùs transversim fasciato vel lineato; aperturá elongatá, albá.* Axis 16 lin.

Hab. —?

Cab. Cuming.

The only species in this now extensive genus where the fasciation of the last whorl is not to be relied on as a character.

These two species have been united by M. Kiener with *T. lanceata*, but I cannot help regarding them as most unquestionably distinct.

TEREBRA LUCTUOSA. *Ter. testá gracile acuminatá, lævigatá, politá, atro-fuscá, rariùs castaneá vel olivacé; anfractibus subplanulatis, integris, supernè plicis parvis undatis, infrà evanidis, ultimo elongato, concolore; columellá lævi, breviusculá.* Axis 17 lin.

Hab. Gulf of Nicoya; Puerto Portrero, west coast of America; in twelve fathoms, coral sand.

Cab. Cuming and Belcher.

TEREBRA CUSPIDATA. *Ter. testá gracile et elongatè subulatá, valdè acuminatá, lævigatá, politá, nitidá; anfractibus planulatis, integris, supernè plicatis, infrà evanidis, pallidis cæruleo angustè fasciatis; anfractu ultimo lævigato, subdiaphano, ad basin fasciá rufá ornato.* Axis 13 lin.

Hab. Cape Coast, Africa: Humphrey.

Cab. Cuming.

TEREBRA MICANS. *Ter. testá conico-subulatá, acuminatá, semiopacá, pallidè fulvá, nitidá; anfractibus planulatis, integris, longitrorsum plicis capillaribus, supernè cæruleo et ad basin anfractús ultimi fusco fasciatis; aperturá infernè effusá; columellá truncatá.*
Axis 13 lin.

Hab. — ?

Cab. Cuming.

The specific name I find in use as a cabinet name, but I am ignorant who is the originator.

TEREBRA LEPIDA. *Ter. testá obeso- vel rariùs subcylindraceo-subulatá, acuminatá, lævigatá, politá, albidá vel pallidè fulvá; anfractibus planulatis, integris, plicis longitudinalibus acutis, interstitiis lævigatis, supernè maculis rufis cinctis; anfractu ultimo subcylindraceo, pallidè fasciato.* Axis 10 lin.

Hab. Guinea; on the sands: Humphrey.

Cab. Cuming.

TEREBRA OBESA. *Ter. testá obeso-subulatá, lævigatá, albidá, maculis fuscis longitudinalibus pallidè ornatá; anfractibus paucis, subrotundatis, integris, ultimo biserialim maculato; spirá obsolete plicatá; aperturá oblongá; columellá truncatá.* Axis 6 lin.

Hab. — ?

Cab. Cuming. Unique.

In this singular little shell the last whorl occupies nearly one half of the entire length.

TEREBRA NASSOIDES. *Ter. testá obeso-subulatá, lævigatá, nitidá, anfractibus planulatis, integris, supernè albo, mediò fusco cinctis, ultimo unicolore; aperturá infernè effusá.* Axis 6 lin.

Hab. — ?

Cab. Cuming.

TEREBRA RUSTICA. *Ter. testá obeso-subulatá, acuminatá, fuscá, nitidá, striis transversis scabrá; anfractibus subrotundatis, longitrorsum plico-costatis, supernè infra suturam luteis; plicis subdistantibus, ferè continuis; anfractu ultimo elongato, concolore; aperturá elongatá; columellá lævi, subrectá.* Axis 8 lin.

Hab. — ?

Cab. Metcalfe.

TEREBRA TENERA. *Ter. testá parvá, obeso-subulatá, lævigatá, nitidá, anfractibus plico-costatis, pallidè fulvis, supernè prope suturam rufo fasciatis, ultimo ad basin rufo; plicis continuis; columellá contortá.* Axis 4 lin.

Hab. Straits of Malacca, in seventeen fathoms; Ceylon.

Cab. Belcher.

TEREBRA MERA. *Ter. testá subcylindraceo-subulatá, lævigatá, nitidá, albidá, vel pallidè rufo latè fasciatá; anfractibus subplanulatis, supernè plicis parvis numerosis obliquis, infrá evanidis; aperturá parvá, elongatá; columellá subtruncatá.* Axis $7\frac{1}{2}$ lin.

Hab. Straits of Malacca, in seventeen fathoms.

Cab. Belcher.

TEREBRA PYGMÆA. *Ter. testá purpureá, obeso-subulatá; anfrac-*

tibus paucis, subrotundatis, longitrorsum minutè plico-costatis, superne insigniter fasciâ angustâ atro-purpureâ cinctis, ultimo propè basin fasciato; aperturâ parvâ, fuscâ; labio interno subproducto.

Axis 3 lin.

Hab. Straits of Malacca, in seventeen fathoms.

Cab. Belcher.

GEOLOGICAL SOCIETY.

June 21, 1843.—The following papers were read :—

1. “Supplement to a Memoir on the Fossil species of *Chimæra*.”
By Sir P. Grey Egerton, M.P., F.G.S.

Since the author's former memoir was communicated to the Society*, he has seen in the collection of Mr. Dixon a new and striking addition to the genus *Ischyodus*. The specimen is from the chalk of Southeram, and presents two dental plates only slightly dislocated from their natural juxtaposition. At first sight these would appear to be the dental armature of the lower jaw, corresponding nearly in size to the lower mandibles of *Ischyodus Mantelli*. A closer examination has satisfied Sir Philip Egerton that they are in reality the intermaxillary plates of the upper jaw of a most gigantic chimæroid. They exceed in size the corresponding teeth of *Ischyodus Townshendi*, the largest species hitherto found, by one third. As compared with the intermaxillaries of that species they are broader, more compressed and less robust in antero-posterior diameter, and less hooked at the extremity. The form of the cutting edge is not truncate, as in the recent *Chimæra*, but prolonged to an acute angle, and bent downwards like the upper mandible of a bird of prey. The symphysis is smooth and slightly hollowed. The thin polished investing lamina of compact dentine is seen adhering to the surface of the tooth. On the interior surface this is marked with broad transverse irregularities similar to, although less distinct than, those seen in the recent *Chimæra*. A fragment in Mr. Dixon's collection gives evidence of having belonged to an individual of much larger size than that which furnished the specimens here described. Sir Philip Egerton proposes to name this species *Ischyodus Gigas*.

2. “On the occurrence of the remains of Insects in the Upper Lias of the county of Gloucester.” By James Buckman, F.G.S.

The remains described in this paper were discovered by Mr. Buckman in a thin seam of argillaceous limestone in the upper lias beds at Dumbleton, a village twelve miles from Cheltenham, to which his attention had been directed by Mr. Brodie, who had suspected the existence of insect remains in the stratum. The section of Dumbleton Hill, which is a liassic outlier, presents the following beds.

	ft. in.
1. Sandy debris from the oolite, about	10 0
2. Upper lias shale: this is traversed at twelve feet from its base by the thin bed of fissile limestone five inches in thickness	60 0
3. Lias marlstone, about	20 0
	90 0

* See vol. xii. p. 467.